Hardwiring Evidence-Based Practice in a Community Hospital Setting

Susan Winslow, MSN, RN, CNA
Jean Blankenship, MSN, RN, CDE, APRN, BC
Constance Palmer, MSN, RN
Amelia Black, MSN, RN, CNA

Nursing leaders are inundated with information on the rationale and need to implement evidence-based practice methodologies. The authors describe their strategy for enculturation of evidence-based practice to ensure staff nurse competence in applying evidence in daily practice, with a secondary goal of organizational readiness to conduct nursing research. Specific interventions for hardwiring evidence-based practice competence are provided.

The implementation of evidence-based practice (EBP) strategies with nursing staff, which is a sweeping phenomenon, is a response to national initiatives regarding patient safety and historical lack of science grounding nursing procedures and practices. Organizational leaders wishing to pursue the highly coveted Magnet designation need to show “integration of research and evidence-based practices into clinical and operational processes” and “evidence of education and mentoring activities that have effectively engaged staff nurses in research and/or evidence-based practice activities.”

Rationale
Problematic gaps occur between nursing researchers in academic settings and direct care nurses in practice who do not routinely access research findings. Nurses in practice often do not recognize the benefit of research utilization in their daily practice. Direct care nurses often lack the time or computer skills needed to locate, critically read, and apply research findings.

With the explosion of clinical nursing research, there is a need to educate direct care nurses on how to form appropriate practice questions, access quality research, appraise that research, and apply the findings. Nursing research needs to be approached on a continuum from awareness of EBP, to application of findings, to the actual conduction of nursing research with oversight and mentoring. Evidence-based practice is being infiltrated into the culture of Martha Jefferson, a 176 bed, not-for-profit community hospital in Charlottesville, Va, through establishing EBP as a core nursing competency, continuing education on nursing research principles, and tying EBP activities to upward progression on the professional advancement program.

Models and Use of Guidelines
Following the guidelines set forth in the Johns Hopkins EBP Model, a program was developed to strategically launch EBP nursing. The guidelines focus on creating a practice question, searching for and evaluating relevant evidence, and translating that evidence into a specific practice setting. Educational sessions with mentored support are required for successful dissemination. Barriers are minimized by involving the nurses in the development of a question relevant and meaningful to their practice. Searching for and critiquing evidence are steps that may create challenges for nurses. Time is needed to access databases, and
specific knowledge and skills are necessary to perform a systematic literature review. Introducing staff to research terminology in nonthreatening ways, making a search interesting, and providing support throughout the search process provide encouragement for nurses unfamiliar with the process. Mentoring by nursing educators, clinical specialists, and graduate students aids in overcoming any knowledge deficit on the part of staff nurses in the collection and synthesis of available scientific evidence.

Implementation
To effectively implement organizational acceptance of EBP as a foundational principle of nursing, basic change theory concepts were used, with the focus on the group level as found in Rogers’ Diffusion of Innovations Theory. The theoretical basis for initial change focuses on the “innovator” and “early adopter” groups, examples of which abound in our shared governance council structure. Consequently, the practice excellence, professional education, work design, and leadership councils were targeted to introduce EBP. Each council was presented with an overview of EBP and a description of the Johns Hopkins Model, and then a mock search for a pertinent research question was performed. Guidance with some basic research terminology, systematic literature review instruction, overview of available resources from the on-site medical library, and an introduction to evidence-based resources were given. Follow-up sessions were conducted where retrieved research articles were distributed, critiqued, and discussed in small groups.

“Early majority adopter” nurses were encouraged to share their EBP activities via poster presentations during our Week of the Nurse celebration. Posters were judged for content, and awards were given at the end of the celebration.

To meet the needs of “late adopters” and “laggards,” capture their interest, and cement EBP understanding, an annual competency was established for nursing. A Handbook for Evidence-Based Practice Nursing Resources specific to Martha Jefferson was distributed to all registered nurses as a guide to EBP. By keeping the subject matter simple, the handbook is nonthreatening to staff nurses who have not had research courses. The Handbook was premiered at the hospital’s annual staff continuing education conference.

To complete the competency, a variety of methodologies were offered, in keeping with adult learning principles:

1. Review the Handbook and successfully complete an online posttest.
2. Attend an EBP in-service during the year and complete the posttest.
3. Complete a literature review and submit it to the clinical educator or unit-based shared governance council for feedback.
4. Prepare and submit a poster presentation.
5. Lead a unit-based journal club.
6. Actively support a unit-based research study or project.
7. Submit an article for publication.

Results
Clinical inquiry has expanded with the introduction of the EBP initiatives. One of our staff nurses, concerned about the complications that immobility can create, brought the following question to the forefront: “What is the effect on mobility when patients are confined to bed during hospitalization?” After analyzing the literature, our practice excellence council launched an effort to create a “mobility culture.” The council provided education for all nursing staff on the impact of immobility on patient outcomes, developed consistent definitions and nomenclature in assessing a patient’s activity status, and formulated an implementation plan for daily nursing interventions that support keeping hospitalized patients active.

Our intensive care unit staff adopted the ventilator-associated pneumonia prevention protocol recommended by the American Association of Critical Care Nurses and are tracking incidence rates on their unit dashboard. The clinical documentation system has been revised to document the recommended interventions, and the protocol has become part of the discussion in their multidisciplinary rounds for all ventilated patients. After the institution of the protocols, the ventilator-associated pneumonia incident rate was 0 for 350 ventilator days.

Other results that have emerged from our efforts to enculturate EBP within the nursing service include an increase in the questioning of therapeutic orders that nurses do not feel are supported
by the literature. As these issues arose, we garnered the support of our medical staff to endorse a policy that allowed for constructive resolution of such questions.

Nursing grand rounds were introduced in the fall of 2005 as an opportunity to share clinical expertise and nursing best practices in a collegial forum. The specific objectives of the nursing grand rounds program include describing how a specific health issue influences nursing practice and patient outcomes, discussing the evidence-based approaches for dealing with the issue, and developing a plan for incorporating the approach into everyday practice.

We have changed the template for our nursing policies to include a required section for citing the professional standards and evidence in the literature that served as the basis for the policy. As each policy is reviewed and updated, the new process ensures that the literature has been reviewed and applied.

Organizational climate and culture are influenced by individual, organizational, and external factors and are recognized as important variables in the success or failure of change initiatives. Martha Jefferson uses a number of validated measurement tools, including a version of the Nursing Work Index-Revised. Originally developed by Kramer and Hafner and modified by Aiken et al, the Nursing Work Index-Revised measures the organizational attributes of an environment supportive of professional nursing practice. Nursing Work Index-Revised survey results for 2005 show a favorable increase in 19 out of the 21 indices, ranging from 3% to 12% over the 2004 results. Of particular note is the more than 93% agreement with regard to “working with nurses who are clinically competent” (a 12% increase over the previous year). “Freedom to make important patient care and work decisions” also saw a 12% increase in agreement over the previous year. These results emphasize that the organization has made progress in developing an environment empowered by evidence-based nursing and has reached a tipping point for enculturating this mind-set into everyday practice.

**Next Steps**

For nearly 20 years, Martha Jefferson has had a clinical ladder program designed to acknowledge the expertise and competence of the bedside nurse. In an effort to assure relevance to current nursing practice, revitalize interest in this voluntary program, and promote the enculturation of EBP, this program underwent extensive revision by the shared governance education council in 2005.

The newly designed Martha Jefferson Advancement in Professional Practice program defines the role of the registered nurse within sequential practice levels using Benner’s Novice to Expert model. One component of a successful Martha Jefferson Advancement in Professional Practice application is the requirement for increasing EBP activities with each level of advancement. Upper levels on the ladder must have a minimum of EPB points, which can be obtained through a variety of activities, including the following: submission of a research article critique, participation in a journal club, revision of a policy or procedure using evidence-based methodologies, poster presentations, submission of an article for publication, or participation in informal or formal nursing research.

Ongoing support from organizational leadership has been demonstrated through funding for a dedicated coordinator of nursing research. This provides continued collaboration between hospital and academic nursing research projects.

**Conclusion**

The development and implementation of a plan for advancing and sustaining an environment in which staff nurses understand, access, and use EBP concepts and strategies can be done using the basic tenets of change theory. Best practices are suggested by organizations such as the Advisory Board Nursing Executive Center. “Hardwiring” EBP competence across the organization has led to the explosion of an environment ripe with EBP activities at Martha Jefferson.

Since the establishment of a culture of EBP, in addition to our nursing grand rounds forum, Martha Jefferson nurses have launched multiple new unit-based journal clubs and several unit-specific nursing research projects. Nurses on every unit are growing professionally as they recognize the value in asking questions and using evidence-based research to find answers to their questions.

**References**